

Serial No. 09/582,256
 Docket No. Brev 12923
 Amendment B Under Rule 116

wherein said doped or undoped active laser material YAG, said monocrystalline layer of saturable absorbent material made of doped YAG deposited directly on said active laser material by liquid phase epitaxy, and the specific orientation of both said active laser material [100] and the said monocrystalline layer [100] achieves controlled polarization of the laser cavity.

31. (Twice Amended) A process for the collective production of triggered microlaser cavities comprising the steps of:

supplying a substrate made of a doped or undoped $\text{Y}_3\text{Al}_5\text{O}_{12}$ (YAG) active laser material with a [100] orientation in the shape of a sheet with parallel faces polished on its two faces;

depositing a monocrystalline layer of doped YAG saturable absorbent material on one of the faces of the said $\text{Y}_3\text{Al}_5\text{O}_{12}$ (YAG) active laser material, by liquid phase epitaxy;

polishing the saturable absorbent monocrystalline layer thus deposited;

depositing entry and exit mirrors on the two polished faces of the cavity; and

cutting out the substrate - monocrystalline layer - mirrors complex thus obtained; wherein said doped or undoped active laser material YAG, said monocrystalline layer of saturable absorbent material made of doped YAG deposited directly on said active laser material by liquid phase epitaxy, and the specific orientation of both said active laser material [100] and the said monocrystalline layer [100] achieves controlled polarization of the laser cavity.

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